

DOCKET NO.: 9350-0169-0



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

Werner POMPETZKI et al : GROUP ART UNIT: 1621

SERIAL NO: 09/618,044 :

FILED: July 17, 2000 : GROUP ART UNIT: E. Price

FOR: PROCESS FOR THE
HYDROGENATION OF ACETONE

REPLY BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VA. 22313

SIR:

The following is a reply to the Examiner's Answer dated April 20, 2004 in the above-identified application.

The Examiner states on page 6, lines 6-11 of his answer that the acetone starting material employed in the process of Fukuhara et al contains 1 % or less of water, especially considering that commercially available acetone, i.e., the acetone of the Sigma Catalog, contains less than 1 % water, and that appellants have not presented any evidence that shows that Fukuhara et al is not using commercially available acetone, i.e., the high purity acetone suitable for use as a solvent in high pressure liquid chromatography of the Sigma Product Bulletin, in their hydrogenation process.

Appellants maintain that the Examiner's statement that Fukuhara et al uses, as an acetone starting material, acetone containing 1 % or less of water, is completely incorrect. It

is clear that patentee describes an industrial scale process of hydrogenating acetone to isopropanol where an acetone starting material such as obtained in large scale manufacturing by the oxidation of propane or by the Hook phenol synthesis in which cumene hydroperoxide is converted to a 1:1 mixture of phenol and acetone, is employed as a starting material. Acetone obtained by these methods contains a significant amount of water, and thus it can not be assumed, as the Examiner has, that the reference, in failing not to disclose anything about the water content of the acetone employed, that the acetone employed contains 1 % or less water. The fact that such an assumption is erroneous is clear from the fact that the patent teaches that the acetone starting material employed is from high volume industrial processes of producing acetone. Moreover, the hydrogenation of the patent may be conducted in a solvent and a useful solvent is **water itself!** In view of the disclosure of the patent, it is manifestly clear that one of skill in the art would in no way assume that the acetone employed in the procedure described in the patent would contain 1 % or less water.

As to the matter of the Sigma Catalog reference, the same discloses high purity, small volume fine chemicals. One of the products sold through the catalog as noted by the Examiner is a high purity acetone solvent that is useful in high pressure liquid chromatography applications as might be conducted in bench scale, laboratory investigations. The procedures employed to prepare such high purity products from available raw materials are costly, but the size and quantities of materials sold are on the order of milliliters, liters and the like. At costs of the like of \$7.00 for just 100 ml or \$17.00 for 1 liter of acetone, such prices are acceptable for very small scale uses such as in the laboratory. However, one of skill in the art would be fully aware that he would not purchase the acetone product of the Sigma catalog in order to conduct an industrial scale operation such as described by Fukuhara et al or the present invention in which acetone is used as the starting material for

isopropanol production by the hydrogenation of acetone. The cost of purchasing the purified acetone product of the Sigma catalog for use in the process of Fukuhara et al would be absolutely prohibitive, as well as nonsensical because of the steps required to produce the highly purified acetone in small quantities. Clearly, the combination of the two references does not lead one of skill in the art to the present invention.

Appellants continue to be of the opinion that the continued rejection of the claims of the application is erroneous and should be REVERSED.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Frederick D. Vastine, Ph.D.
Registration No. 27,0123

Customer Number

22850

TEL: 703-413-3000
FAX: (703) 413-2220
NFO:FDV